

REMARKS

Claims 7-8, 13, 19, 24-27, 35-36, 40, and 48-54 are pending. Reconsideration is respectfully requested. Entry of the amendment is requested. No new matter has been added.

Claim Rejections

As best understood, the rejections are based on the claims presented in Applicants' Response filed July 10, 2008 (in reply to the Advisory Action dated June 12, 2008).

Claims 7-8 were rejected under 35 U.S.C. § 103(a) over McClure (US 3,294,342) in view of Granzow (US 4,580,040) and Dallman (US 4,681,044).

Claim 13 was rejected under 35 U.S.C. § 103(a) over McClure in view of Granzow and Milatz (US 4,942,464).

Claims 19 and 40 were rejected under 35 U.S.C. § 103(a) over McClure in view of Granzow.

Claims 24-27 were rejected under 35 U.S.C. § 103(a) over McClure in view of Granzow and Paganini (US 4,398,257).

Claims 35-36 were rejected under 35 U.S.C. § 103(a) over McClure in view of Dallman.

Applicants request that the rejection of claims 19 and 40 be withdrawn

The record shows that the current 35 U.S.C. § 103(a) rejection of claims 19 and 40 based on McClure and Granzow is identical to a previously appealed rejection. That is, the 35 U.S.C. § 103(a) rejection of claims 19 and 40 based on McClure and Granzow was already fully considered by the Board of Patent Appeals and Interferences (BPAI) in Appeal No. 2007-0699. In their decision dated September 21, 2007, the BPAI reversed said rejection of claims 19 and 40. Thus, the Office is legally barred from again asserting these same rejections based on principles of res judicata.

The record shows that because this issue was *already* decided on by the BPAI, the 35 U.S.C. § 103(a) rejection of claims 19 and 40 based on McClure and Granzow is a moot issue. Thus, the rejection of claims 19 and 40 is legally improper and should be withdrawn. Applicants *reserve all rights to petition* against the Office further continuing this improper rejection.

The references do not render obvious the recited subject matter

Applicants' appeal remarks regarding the references are herein incorporated by reference.

Claim 7

The rejection admits that McClure/Granzow does not teach a door frame. It follows that McClure/Granzow cannot teach or suggest "the frame is in supporting connection with the wall" and that a customer station component is "in supporting connection with the frame".

The rejection (at Action page 6) alleges that Dallman's door (34) has a door frame that is attached to an arcuate shaped wall (32). Applicants respectfully disagree. Nevertheless, even if Dallman somehow taught a door frame for a door (34) as alleged, the rejection still would not teach or suggest a customer station component being in supporting connection with a door frame. None of the references teaches or suggests supporting a customer station component with a door frame. Thus, the Office has not established a *prima facie* case of obviousness.

Nor has the Office presented a valid reason for adding Dallman's *arcuate shaped* wall (32) to McClure/Granzow. Nor has the Office explained how such an arcuate shaped wall could be structurally added to McClure/Granzow. Clearly the Office's attempt to combine the alleged teachings is an attempt at hindsight reconstruction of the claimed invention, which is legally impermissible and does not constitute a valid basis for a finding of obviousness. *In re Fritch*, 23 USPQ2d 1780 (Fed. Cir. 1992). The rejections, which lack the necessary evidence and rationale, are based on knowledge gleaned only from Applicants' disclosure. The record is absent a

teaching, suggestion, motivation, or valid reason for one of ordinary skill in the art to have produced the claimed invention. Thus, the claim 7 rejection should be withdrawn.

Claim 13

The rejection admits that McClure/Granzow does not teach a sensor that “is operative to sense a person positioned adjacent the customer station”. It follows that McClure/Granzow cannot teach or suggest an SP station having “an indicator in operative connection with the sensor”.

The rejection (at Action page 10) alleges that Milatz’s object sensor (16) can sense objects within a specific region (18). The rejection reasons that it would have been obvious to combine Milatz’s object sensor (16) with a customer station in order to detect the presence of a customer in order to enable an SP station to serve the customer more effectively. Applicants respectfully disagree.

First, the Office has not established a *prima facie* case of obviousness. The rejection does not address the feature of an *SP station* having a presence indicator. Nor do any of the references teach or suggest an SP station having a presence indicator. Nor is Milatz’s sensor (16) used to indicate the presence of a person to an SP. Rather, at best Milatz’s sensor (16) used to prevent a thief from receiving dispensed cash (col. 1, lines 51-55).

Second, the provided reason (detect the presence of a customer in order to enable an SP station to serve the customer more effectively) for combining the references is not a legally *valid* reason. In Milatz the “camera 12 is arranged to be switched on by the control unit 24, as soon as the money dispenser 10 is actuated” (col. 2, lines 27-29). The “camera detects a field of view 14” (col. 2, line 1). The sensor (16) responds when an object is located in a region (18; Figure 2) of this field of view (14). Thus, any sensing in Milatz is done at the *end* of a cash dispense

transaction, when an SP is not needed. The record is absent a teaching, suggestion, motivation, or valid reason for one of ordinary skill in the art to have produced the claimed invention.

Claim 19

Applicants' remarks filed in Appeal No. 2007-0699 are herein incorporated by reference.

Claim 24

The rejection admits that McClure/Granzow does not teach "a queuing device at the SP station", where "the queuing device is in operative connection with each customer actuatable device", and an order (generated by the queuing device) that includes "data representative of a time sequence" in which the devices were actuated.

The rejection (at Action page 17) alleges that Paganini teaches "a queuing device (20 and 28 of fig. 1) at the SP station (40-50 of fig. 1)". Applicants respectfully disagree. Paganini's Figure 1 provides evidence that the alleged queuing device (20, 28) is not at any of the alleged SP stations (40-50). It follows that Paganini cannot teach or suggest the "order" or "time sequence".

Furthermore, it is unclear how Paganini relates to *plural customer stations* connected with a single SP station, where the SP station has a customer queuing device. Rather, Paganini appears to oppositely teach away from the recited invention. Paganini is directed to queue traffic control in a bank that has *plural* bank tellers and a *single* customer waiting line. Paganini directs a next bank customer (who is located at the front of the waiting line) to the bank teller who has been predicted (by an arrangement) to become the next available free teller. The customer is directed to this teller before this teller finishes serving their present customer. Thus, the arrangement increases teller efficiency by saving time. Paganini's next available free teller estimation is based on several factors (e.g., Paganini's claim 1).

The Office has not established a *prima facie* case of obviousness. The record is absent a teaching, suggestion, motivation, or valid reason for one of ordinary skill in the art to have produced the claimed invention.

Claim 35

The rejection (at Action page 20) alleges that Granzow teaches a customer station (ATM 12) that fits between two walls (114 and 146). Applicants respectfully disagree. Granzow's one-way mirror (114; col. 6, lines 37-40) is not a wall. Even if the mirror (114) were somehow construed as a wall, one of ordinary skill in the art would understand that a space between two separated walls is not "a wall *opening*" through "an interior building wall" (step a).

The rejection admits that Granzow does not teach a door frame in a wall opening, a transaction component in supporting connection with the frame, or a wall opening cover having a component opening through which the transaction component is accessible.

For reasons already discussed (e.g., claim 7 remarks), Dallman does not teach or suggest a customer station component in supporting connection with a door frame. Thus, the Office has not established a *prima facie* case of obviousness.

The rejection (at Action page 21) alleges that Dallman teaches a cover (32) with a transaction component opening (42). Applicants respectfully disagree. Dallman's "conventional lock assembly 42" (col. 4, line 49) does not constitute an opening through which a transaction component is accessible, especially a transaction component that is in supporting connection with a door frame. Thus, the Office further has not established a *prima facie* case of obviousness.

Nor has the Office presented a valid reason for adding the *arcuate shaped* cover (32) (as alleged in Dallman) to Granzow. The record is absent a teaching, suggestion, motivation, or valid reason for one of ordinary skill in the art to have produced the claimed invention.

Claim 40

Applicants' remarks filed in Appeal No. 2007-0699 are herein incorporated by reference.

Claims 48-50

For reasons already discussed, the references also do not teach or suggest the frame arrangements in each of independent claims 48, 49, and 50. These claims also recite additional specific features and relationships not taught or suggested by the references.

The dependent claims

Each of the dependent claims depends directly or indirectly from an independent claim, which have been shown to be allowable. Thus, the dependent claims are allowable on the same basis. Furthermore, each of the dependent claims recites additional specific features and relationships that further patentably distinguish the claimed invention over the applied art.

The declaration pursuant to 37 C.F.R. § 1.132 submitted herewith

The declaration is from a person with actual knowledge of the relevant art and level of ordinary skill in the art of transaction systems at the time of the present invention. The declaration establishes that the person of ordinary skill in the art at the time of the present invention would *not* have recognized from the combination of references any teaching or suggestion of the features and relationships recited in the independent claims.

The declaration further establishes that the teachings of the cited references, in combination with the knowledge of one of ordinary skill in the art at the time of the present invention, are insufficient to enable producing the recited invention. Thus, the declaration further establishes that the rejections are legally improper.

It is well settled that "weight ought to be given to a persuasively supported statement of one skilled in the art." *In re Lindell*, 385 F.2d 453, 155 USPQ 521 (CCPA 1967). Applicants

submit that the declaration provides such a statement. The declaration provides evidence that the person of ordinary skill in the art at the time of Applicants' invention would *not* agree with the independent claim rejections, which are based solely on the opinion of the Examiner (whom the record has *not* established as a person of ordinary skill in the art at the time of invention).

The attached document

Attached is a four-page document titled "1072ix Through The Wall Walk-Up Unit With ix Safe and Polymer Fascia" (File No. 177-385 Rev. 3). The document provides details for mounting a through-the-wall ATM. Contrary to the unsupported opinion of the BPAI in the rehearing decision dated February 15, 2008, the document provides evidence of record against a through-the-wall type of ATM being supported by a wall.

Request for treatment as a "special" case

This application was filed July 7, 1997. Thus, this application has been pending more than twelve (12) years. In accordance with MPEP § 708.01 (I) and § 707.02 an application pending more than five years is to be treated as a "special" case and be advanced out of turn by the Office. That is, this application was to have been given a very high priority by the Examiner in the order of examination (MPEP § 708), and its priority handling was to have been personally overseen by the supervisory patent examiner (MPEP § 707.02). As the record shows, the Office failed in its prosecution duty, especially with regard to "compact prosecution".

Unlawful taking of patent term time

As previously mentioned, pendency has been more than twelve (12) years. The Office's propensity to continuously prosecute this application for more than twelve years is not in conformance with the Office's own examining rules and procedures. The time already taken by the Office to prosecute this application is longer than half of a normal full patent term (20 years).

Furthermore, because of the 1997 filing date, prosecution delay time caused by the Office is lost patent term time that Applicants may not be able to recoup (without a lawsuit). The Office is not allowed to reduce a patent term by continually engaging in unnecessary application prosecution. Yet this is the situation regarding this application. The prosecution record gives the impression that the Office purposely continues to unnecessarily prolong prosecution so there eventually will not be any viable patent term remaining for Applicants. Such action by the Office constitutes an unlawful taking of patent term time.

The obfuscation and delay by the examining Group, as evidenced by the record, suggests a pattern of arbitrary and capricious action against Applicants. Such action by the Office violates the Administrative Procedures Act, 5 U.S.C. § 701 *et seq.* as an abuse of agency authority.

Request for application transfer

Because of the assigned unit's inability to efficiently examine this application, the Applicants again request that this application be transferred to an examining unit of the Office that is capable of meeting the stated "compact prosecution" goals of the Office.

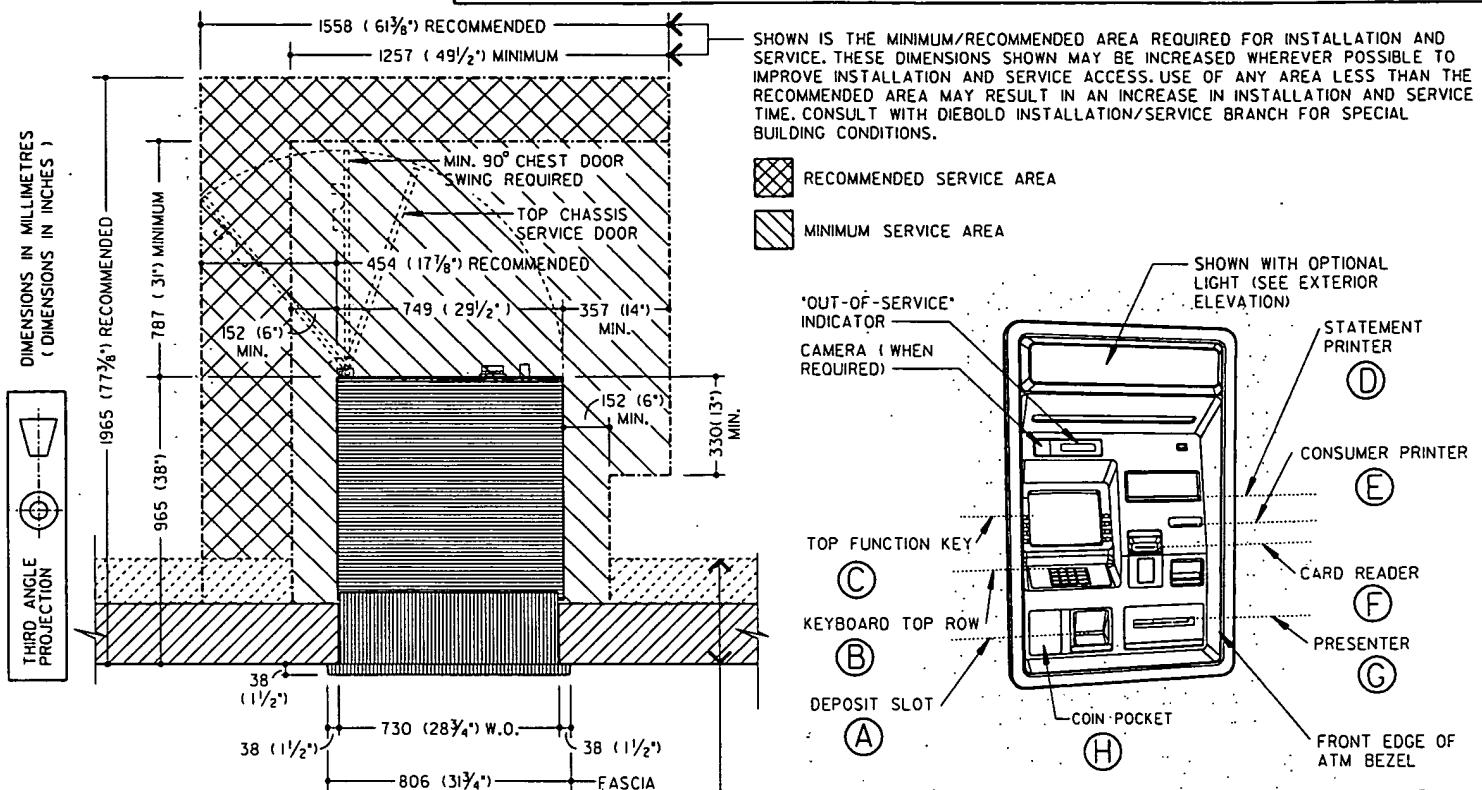
Conclusion

Applicants respectfully submit that this application is in condition for allowance. The undersigned is willing to discuss any aspect of the Application at the Office's convenience.

Respectfully submitted,



Ralph E. Jocke Reg. No. 31,029
WALKER & JOCKE
231 Broadway
Medina, Ohio 44256
(330) 721-0000



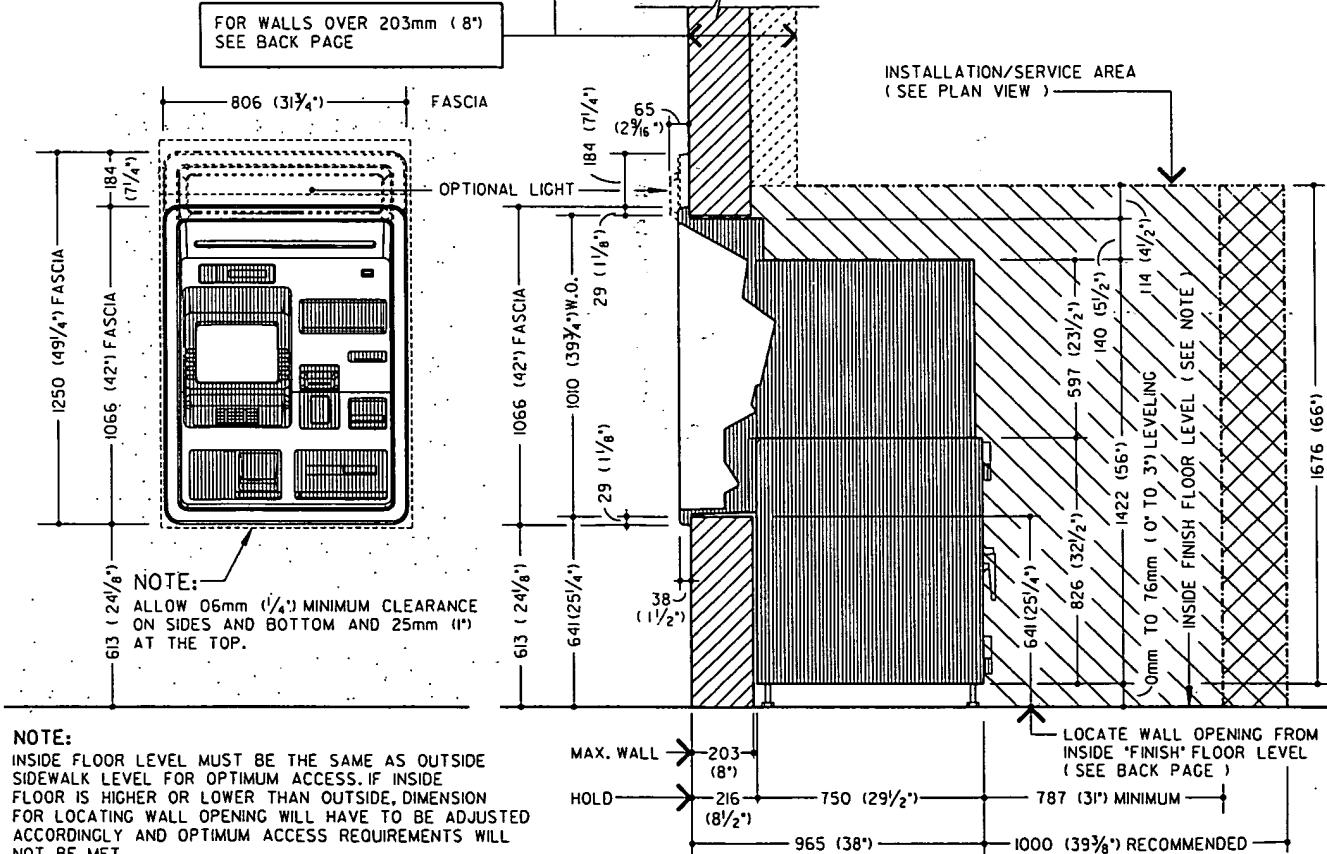
PLAN VIEW

PERSPECTIVE

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NOTE -

NOTE: INSIDE FLOOR LEVEL MUST BE THE SAME AS OUTSIDE SIDEWALK LEVEL FOR OPTIMUM ACCESS. IF INSIDE FLOOR IS HIGHER OR LOWER THAN OUTSIDE, DIMENSION FOR LOCATING WALL OPENING WILL HAVE TO BE ADJUSTED ACCORDINGLY AND OPTIMUM ACCESS REQUIREMENTS WILL NOT BE MET.

EXTERIOR ELEVATION

VERTICAL SECTION



CONDUIT AND JUNCTION BOX REQUIREMENTS

- 1 25mm (1") METAL CONDUIT FROM ALARM CONTROL CABINET JUNCTION BOX TO 102mm(4") SO. X 54mm(2 1/8") DP. JUNCTION BOX (ALL BY E.C.) DIEBOLD TO PROVIDE FLAT COVER WITH TAMPER SWITCH.
- 2 WHEN "SECUROMATIC" AFTER HOUR DEPOSITORY IS TO BE CONNECTED TO ATM UNIT, E.C. TO RUN 19 mm (3/4") METAL CONDUIT FROM 102mm (4") SO. X 54mm(2 1/8") DP. JUNCTION BOX TO AFTER HOUR DEPOSITORY.
- 3 E.C. TO RUN 19 mm (3/4") LIQUID TIGHT FLEX METAL CONDUIT OR 19mm(3/4") RIGID CONDUIT FROM JUNCTION BOX TO CABLE CONNECTING PLATE.
- 4 19mm(3/4") METAL CONDUIT AND UNSWITCHED ELECTRICAL SUPPLY TO 102mm(4") SO. X 54mm(2 1/8") DP. JUNCTION BOX WITH RECEPTACLE WITHIN 2184mm (86") OF SIDE OR FRONT CONNECTING PLATE. BOTTOM CONNECTION MUST BE COMPENSATED ACCORDINGLY (ALL BY E.C.) (SEE POWER REQUIREMENTS).
- 5 E.C. TO SUPPLY COMPATIBLE RECEPTACLE FOR COUNTRY SPECIFIC PLUG-IN CONNECTOR SUPPLIED WITH UNIT. POWER CORD LENGTH 2184mm (86") FROM SIDE OF UNIT.

FOR DESK TOP MODEMS - NO CONDUIT REQUIRED FOR DATA LINE CABLE. MODEM MUST BE INSTALLED WITHIN 12802mm (42'-0") CABLE RUN OF THE UNIT.
DATA CABLE MUST BE AT LEAST 51mm (2") FROM ANY A.C. POWER CABLE.
DESK TOP MODEMS MUST BE WITHIN 1828mm (6'-0") OF A STANDARD, SINGLE PHASE, THREE-WIRE OUTLET.

NOTE:

JUNCTION BOXES MUST BE LOCATED WITHIN 2184mm (86") OF CONNECTING PLATE. (LENGTH OF ELECTRICAL POWER CABLE PROVIDED WITH UNIT). LOCATE IN AN EASILY ACCESSIBLE AREA.

BOXES CAN BE FLUSH MOUNTED WITH CONCEALED CONDUIT FOR NEW CONSTRUCTION OR BOXES CAN BE SURFACE MOUNTED WITH EXPOSED CONDUIT FOR EXISTING CONSTRUCTION.

SPECIFICATIONS

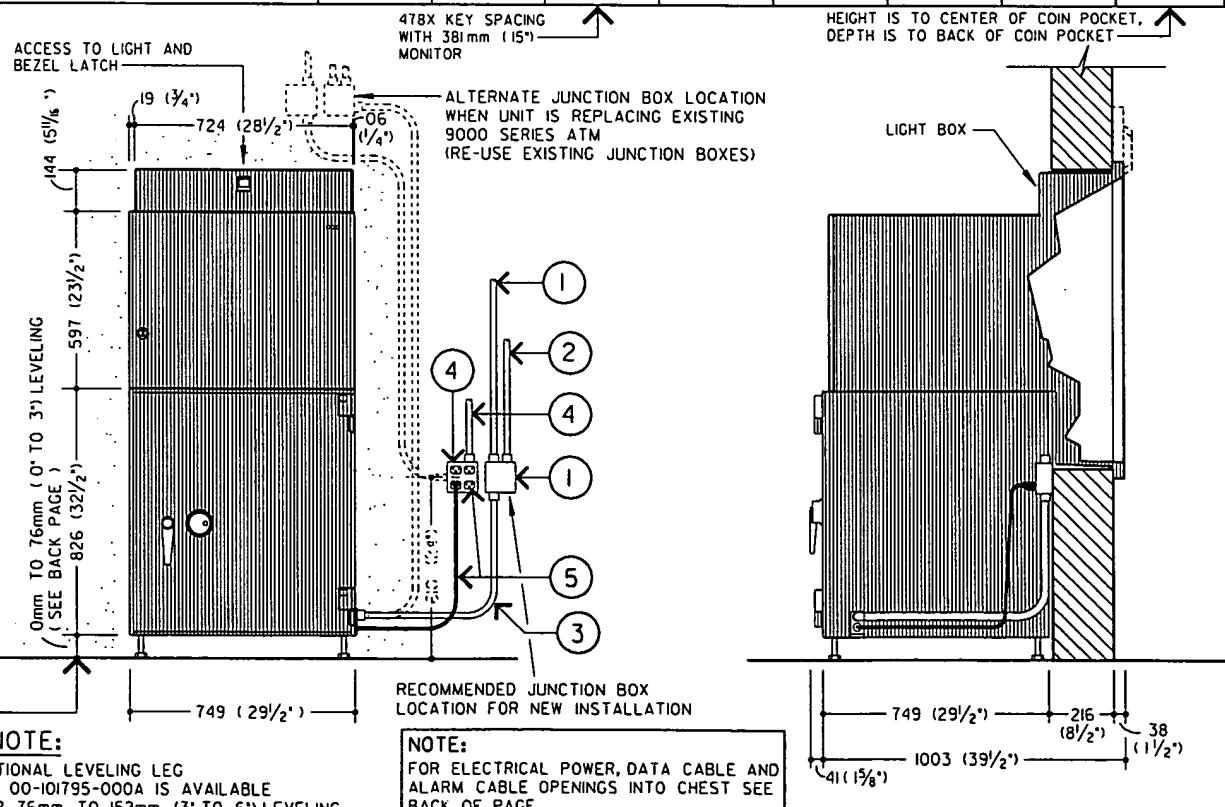
PHYSICAL SECURITY

THE SECURITY SAFE MEETS THE BANK PROTECTION ACT 82 STAT 295, 12 USC 882, AND MEETS THE ATTACK TEST PER UL 291-15. THE SAFE DOOR HAS A POSITIVE RELOCKING FEATURE. THE SAFE DOOR IS CONTROLLED BY A GROUP 2 COMBINATION LOCK WITH OR WITHOUT KEYLOCKING DIAL CAPABILITY OR OPTIONAL ELECTRONIC LOCK.

ALARM PROTECTION

THE UL-LISTED SAFE IS EQUIPPED WITH A BASIC ALARM SENSOR PACKAGE. THE BASIC PACKAGE INCLUDES A SAFE DOOR OPEN SWITCH, ALARM SHUNTING SWITCH, AND RATE-OF-RISE HEAT SENSOR.

	DEPOSIT SLOT (A)	CONSUMER KEYBOARD TOP ROW (B)	TOP FUNCTION KEY (C)	STATEMENT PRINTER (D)	CONSUMER PRINTER (E)	CARD READER (F)	PRESENTER (G)	COIN POCKET (H)
HEIGHT FROM BOTTOM OF SAFE (WITHOUT LEVELING LEGS)	681 (26 1/16")	909 (35 1/16")	1095 (43 1/8")	1189 (46 1/16")	1080 (42 1/2")	1000 (39 3/16")	711 (28")	709 (27 1/8")
DEPTH FROM FRONT EDGE OF ATM BEZEL (WITH STANDARD WALL COLLAR)	197 (7 3/4")	244 (9 5/16")	289 (11 1/8")	184 (7 1/4")	165 (6 1/2")	162 (6 3/8")	143 (5 5/8")	221 (8 1/16")



INTERIOR ELEVATION

POWER REQUIREMENTS

THE ATM REQUIRES A SINGLE-PHASE THREE-WIRE UNSWITCHED POWER OUTLET. WIRING TO THE ATM MUST USE A THIRD-WIRE EARTH GROUND (CONDUIT GROUND IS NOT ACCEPTABLE). THE POWER SUPPLIED MUST BE AS SPECIFIED BELOW:

100-127 VAC (+6%,-10%) 50Hz (+/-1%) SINGLE PHASE
100-127 VAC (+6%,-10%) 60Hz (+/-1%) SINGLE PHASE
200-240 VAC (+/-10%) 50Hz (+/-1%) SINGLE PHASE
200-240 VAC (+/-10%) 60Hz (+/-1%) SINGLE PHASE

POWER TO THE ATM MAY BE A BRANCH OR DEDICATED SERVICE AND MUST BE PROTECTED BY A SAFETY QUICK-DISCONNECT DEVICE TO BREAK LINE VOLTAGE (SUCH AS A CIRCUIT BREAKER AT THE ELECTRICAL SERVICE PANEL). THE QUICK DISCONNECT DEVICE (OR CIRCUIT BREAKER) MUST TURN OFF THE LINE VOLTAGE AT THE AMPERAGE SPECIFIED BELOW.

100-127 VAC SERVICE, DISCONNECT AT 20 AMPERES
200-240 VAC SERVICE, DISCONNECT AT 10 AMPERES

INSTALLATIONS OUTSIDE THE U.S.A. MUST INCLUDE EARTH FAULT PROTECTION. OTHER ELECTRONIC DEVICES SHARING POWER ON A COMMON BRANCH CIRCUIT MUST CONFORM TO THE SAME CONDUCTED INTERFERENCE STANDARDS AS THE ATM.

POWER USAGE FOR WALK-UP ATM

MACHINE STATUS	STANDARD DEVICES (1)	COLOR MONITOR (2)	MAXIMUM DEVICES (3)
IDLE (NO TRANSACTION)	195 WATTS	300 WATTS	850 WATTS
TRANSACTION (DISPENSE) IN PROGRESS	320 WATTS	425 WATTS	975 WATTS

① CTP OR HTP PROCESSOR, MONOCHROME MONITOR, MOTORIZED CARD READER, JOURNAL PRINTER, CONSUMER PRINTER, STANDARD DEPOSITER, AND FOUR-HIGH DISPENSER.

② SAME AS (1) ABOVE WITH 381 (15") COLOR MONITOR REPLACING 229 (9") MONOCHROME MONITOR.

③ SAME AS (2) ABOVE WITH HEATER.

THE POWER USE DEPENDS ON THE NUMBER AND TYPE OF DEVICES PRESENT IN THE ATM, AND THE TYPE OF TRANSACTION THE ATM IS PERFORMING.

HEAT OUTPUT

3,327 BTU/HR MAX. WITH HEATERS (DISPENSE) - 1,024 BTU/HR WITHOUT HEATERS (IDLE)

OPERATING ENVIRONMENT

SAFE LOCATION
10° C TO 38° C (50° F TO 100° F)
RELATIVE HUMIDITY (NON-CONDENSING)
20 TO 80% AT 32° C (90° F)
20 TO 55% AT 38° C (100° F)

FASCIA LOCATION
-34° C TO 54° C (-30° F TO 130° F)

WEIGHT OF UNIT
680 kg (1,500 LBS.)
RELATIVE HUMIDITY IS TO 100%.

VERTICAL SECTION

1072*ix* THROUGH THE WALL WALK-UP UNIT
WITH *ix* SAFE AND POLYMER FASCIA
WALL OPENING DETAIL

DIMENSIONS IN MILLIMETRES
(DIMENSIONS IN INCHES)

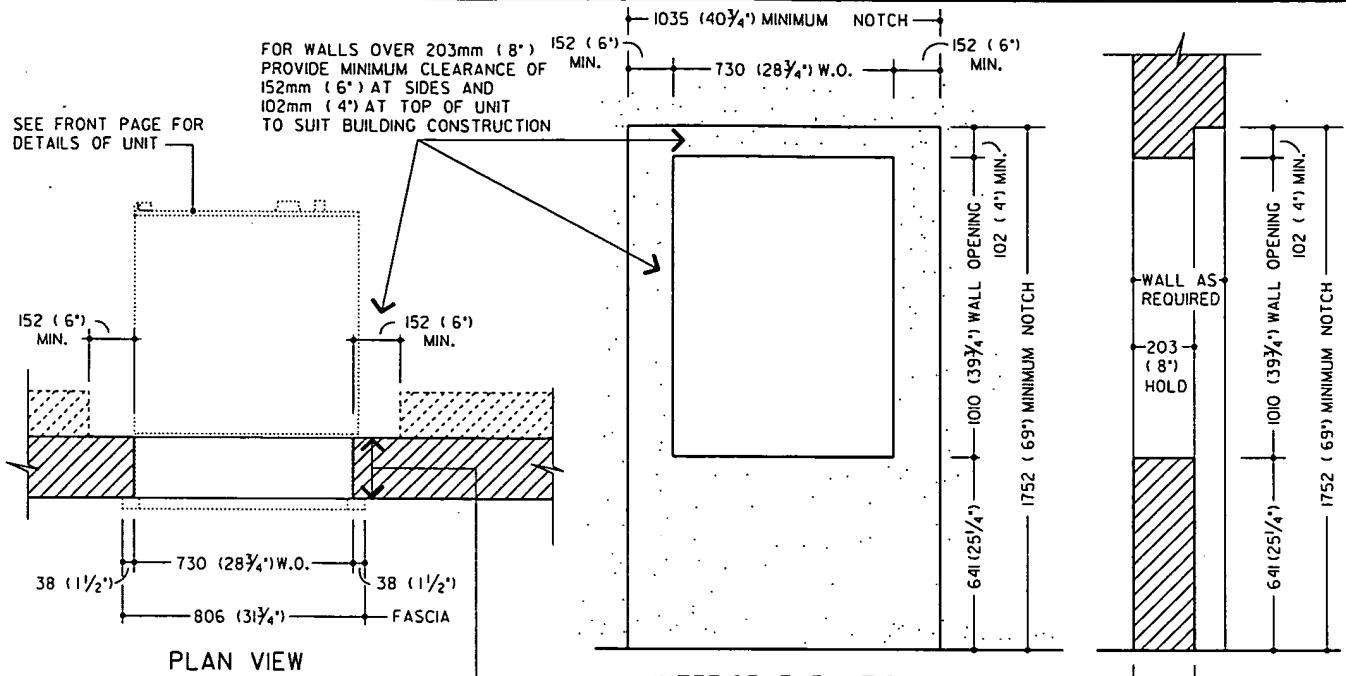


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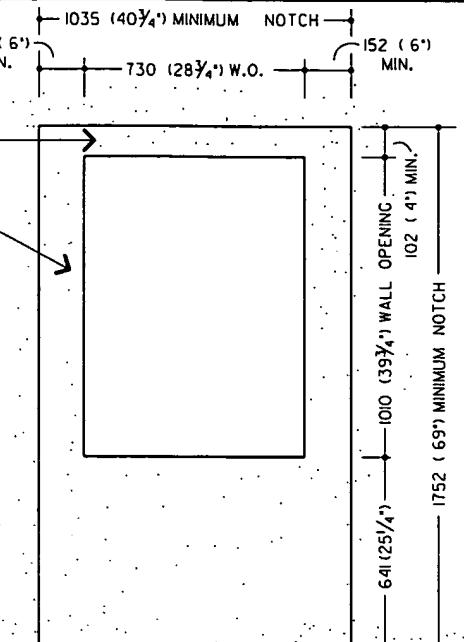
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SEE FRONT PAGE FOR
DETAILS OF UNIT

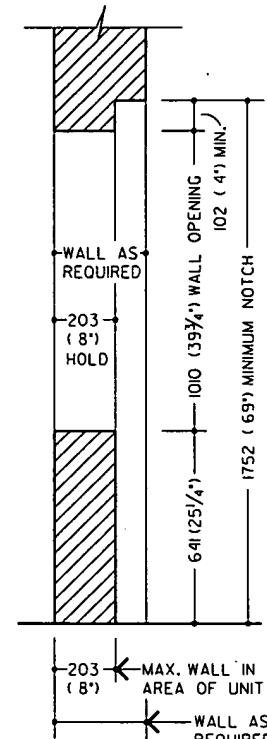


PLAN VIEW



INTERIOR ELEVATION

NOTE:
DETAIL FOR WALLS OVER 203mm (8")



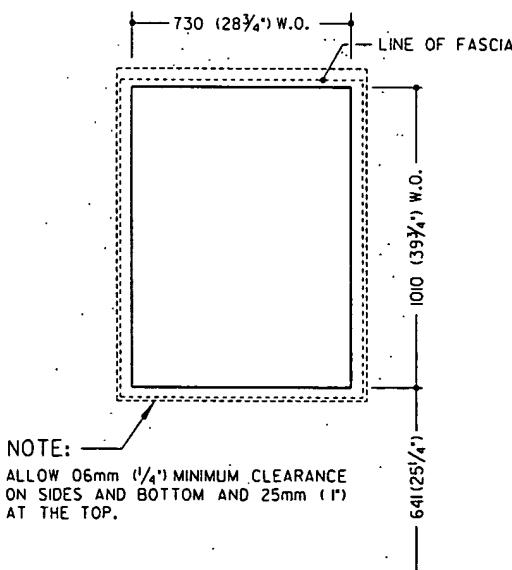
SECTION

NOTE:

565 (22 1/4") MIN. FROM INSIDE "FINISHED" FLOOR
LEVEL TO WALL OPENING (WHEN UNIT IS
SITTING ON THE FLOOR WITHOUT LEVELING
LEGS).

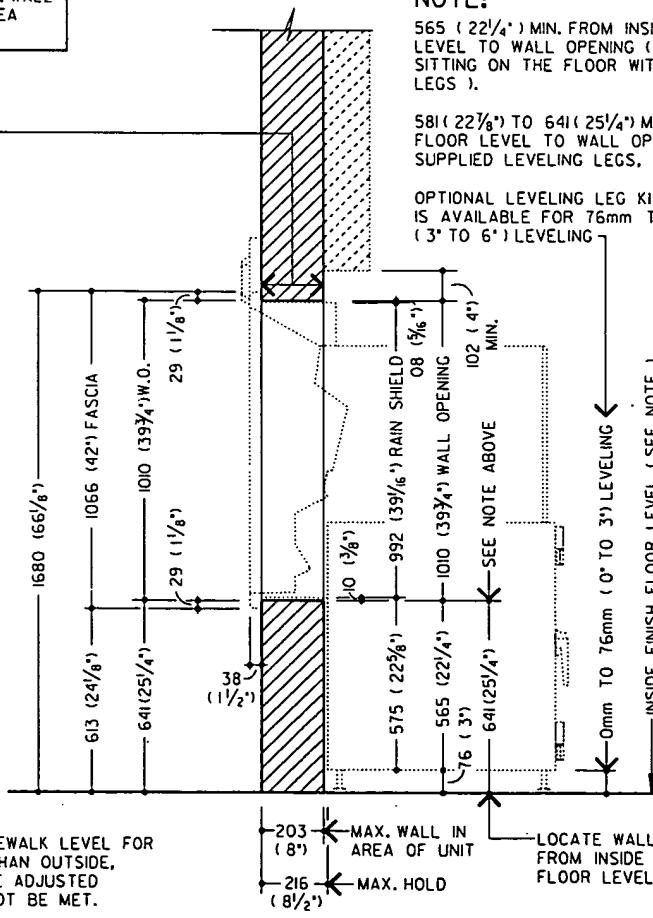
581 (22 1/4") TO 641 (25 1/4") MAX. FROM INSIDE
FLOOR LEVEL TO WALL OPENING WHEN USING
SUPPLIED LEVELING LEGS.

OPTIONAL LEVELING LEG KIT 00-101795-000A
IS AVAILABLE FOR 76mm TO 152mm
(3" TO 6") LEVELING.



NOTE:

ALLOW 06mm (1/4") MINIMUM CLEARANCE
ON SIDES AND BOTTOM AND 25mm (1")
AT THE TOP.



VERTICAL SECTION

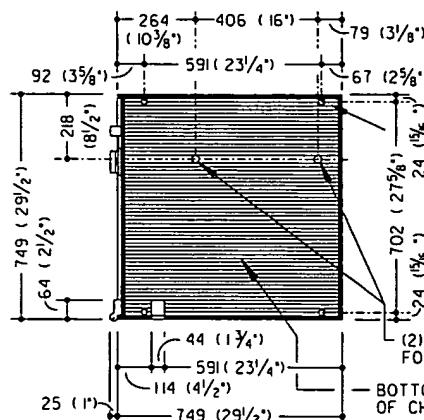
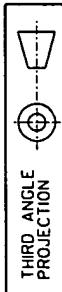
NOTE:
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OPTIMUM ACCESS. IF INSIDE FLOOR IS HIGHER OR LOWER THAN OUTSIDE,
DIMENSION FOR LOCATING WALL OPENING WILL HAVE TO BE ADJUSTED
ACCORDINGLY OR OPTIMUM ACCESS REQUIREMENTS WILL NOT BE MET.

EXTERIOR ELEVATION

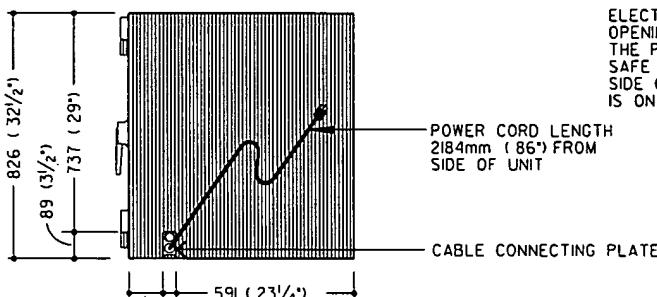
LOCATE WALL OPENING
FROM INSIDE "FINISHED"
FLOOR LEVEL



DIMENSIONS IN MILLIMETRES
(DIMENSIONS IN INCHES)



PLAN VIEW



SIDE VIEW

POWER CABLE PLATE

NOTE:

ELECTRICAL AND DATA CABLING ENTERS THE ATM THROUGH A CABLE ENTRY OPENING ON THE SIDE OF THE SAFE. CABLES ENTERING THE ATM PASS THROUGH THE POWER CABLE PLATE WHICH IS ATTACHED TO THE INSIDE WALL OF THE SAFE OVER THE CABLE ENTRY OPENING. CABLING CAN ENTER FROM THE SIDE OR OPTIONALLY FROM UNDER THE ATM. THE CABLE ENTRY OPENING IS ON THE RIGHT SIDE OF THE SAFE AS VIEWED FROM THE REAR OF THE ATM.

GENERAL SPECIFICATIONS

SIGNAL CABLE RUN CONSTRAINTS

THE FOLLOWING CHART ITEMIZES THE PHYSICAL SPACING REQUIREMENTS OF THE SIGNAL CABLE RUN WITH RESPECT TO OTHER POWER AND ELECTRICAL EQUIPMENT CABLE RUN.

TYPE OF ELECTRICAL RUN	POWER OF ELECTRICAL RUN		
	BELOW 2 KVA	2-5 KVA	ABOVE 5 KVA
FLUORESCENT, NEON OR INCANDESCENT LIGHTING FIXTURES	127mm (5")	127mm (5")	127mm (5")
UNSHIELDED POWER LINE OR ELECTRICAL EQUIPMENT	127mm (5")	305mm (12")	610mm (2'-0")
UNSHIELDED POWER LINES OR ELECTRICAL EQUIPMENT WITH SIGNAL CABLES ENCLOSED IN GROUNDED CONDUIT	64mm (2 1/2")	152mm (6")	305mm (12")
POWER LINES IN GROUNDED CONDUIT WITH SIGNAL CABLES IN GROUNDED CONDUIT	30mm (1 1/16")	76mm (3")	152mm (6")

SIGNAL CABLE INSTALLATION CONSTRAINTS

RELATIVE CARE IS REQUIRED WHEN INSTALLING SIGNAL CABLES IN CONDUITS. UNLIKE POWER AND LIGHTING CABLE, SIGNAL CABLES HAVE SMALL CONDUCTORS AND LIGHT INSULATION AND WILL NOT WITHSTAND AS MUCH STRAIN IN INSTALLATION. THE FOLLOWING CHART SUMMARIZES SOME COMMON CONDUIT PARAMETERS. THE SUM OF THE CROSS-SECTIONAL AREAS OF CABLES BEING INSTALLED IN CONDUIT SHOULD NOT EXCEED 40% OF THE AREA OF THE CONDUIT.

CONDUIT SIZE (INCHES)	INTERNAL DIAMETER (INCHES)	AREA-SQUARE INCHES			
		100%	40%	33%	25%
1/2"	.622	.30	.12	.099	.075
5/8"	.824	.53	.21	.175	.132
1"	1.049	.86	.34	.283	.215
1 1/4"	1.380	1.50	.60	.495	.375
1 1/2"	1.610	2.04	.81	.673	.510
2"	2.057	3.36	1.34	1.09	.840

FOR CONDUIT RUNS 15.25 METRES TO 30.5 METRES (50 TO 100 FEET), NOT MORE THAN 33% OF CONDUIT AREA SHOULD BE USED.

FOR CONDUIT RUNS OVER 30.5 METRES (100 FEET), NOT MORE THAN 25% OF CONDUIT AREA SHOULD BE USED. EACH 90° CONDUIT BEND MAY BE ESTIMATED AS EQUAL TO THE FRICTION OF A 9.15 METRES (30 FOOT) LENGTH STRAIGHT LEVEL CONDUIT IF MORE THAN TWO 90° BENDS ARE USED IN CONDUIT RUN. INSERT A PULL BOX.

STRAIGHT LEVEL CONDUIT: IN ELECTRO STATIC DISCHARGE

ELECTRO STATIC DISCHARGE
STATIC ELECTRICITY CHARGES ARE BUILT UP AS A RESULT OF CONTACT WITH CERTAIN FLOOR COVERINGS AND FURNITURE. A DISCHARGE OF THIS BUILD UP CAN CAUSE DISCOMFORT TO PEOPLE AND POSSIBLE INTERFERENCE WITH ELECTRONIC EQUIPMENT. THE FOLLOWING PRECAUTIONS SHOULD BE TAKEN WHENEVER POSSIBLE TO REDUCE THE CHANCE OF STATIC DISCHARGE PROBLEMS.

AVOID RELATIVE HUMIDITY VALUES OF LESS THAN 40%. TREAT FLOOR COVERINGS AROUND ELECTRONIC EQUIPMENT WITH STATIC REDUCING AGENTS COMMERCIALLY AVAILABLE.

EXTERNAL CABLING

EXTERNAL CABLEING
PLEASE REFER TO THE APPROPRIATE ATM LITHO FOR DETAILS FOR TERMINAL CABLE ACCESS.
JUNCTION BOXES, CONDUIT, ETC., ARE THE RESPONSIBILITY OF THE CUSTOMER.
LOCAL CODES WILL DICTATE LOCATION AND MATERIALS TO BE USED.

USED IN ELECTRICAL CONNECTIONS

NEGATIVE PRESSURE CONSTRAINTS
TO PREVENT COLD WEATHER OPERATING PROBLEMS DUE TO INDUCTION OF OUTSIDE AIR AND ACCOMPANYING INCURSION OF DIRT, ATM SHOULD BE HOUSED IN A POSITIVE PRESSURE ENVIRONMENT, HOWEVER, NEGATIVE PRESSURE (VACUUM) NOT EXCEEDING (.05')_{H2O} IS ACCEPTABLE. TALL BUILDINGS ARE ESPECIALLY PRONE TO HAVING NEGATIVE PRESSURE VALUES GREATER THAN (.05')_{H2O}. SPECIAL ENGINEERING WILL BE REQUIRED IF THIS SPECIFIED NEGATIVE PRESSURE IS EXCEEDED.